

Work Order ID 83194

83194

Page 1

April-13-12 1:02:06 PM

Item ID: D412-702-021

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 13/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 27/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: *MLJ*

Date: *12/04/13*

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

N/A

Rev N/A

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels per PPP D412-702-021 CHG003

Scrlu127

MLJ 12-4-25

110

0.00

Pick Kit

110

Packaging

Memo

0.00

Packaging

1X

SP 12-04-25

120

0.00

QC4- 100% Inspect kits for completeness

120

QC

Memo

0.00

Quality Control

Scrlu127

(40)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-13-12 1:02:11 PM

Page 1

Work Order ID: 83194

83194

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 13/04/2012

Required Date: 27/04/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B Removed Manufacturing 05-11-08 JLM
 IPP Rev:C06.04.03As per DSI9324 JLM
 IPP rev D 06.12.14 per ecn 871 EC
 IPP Rev:E 07-03-14 As per DSI 9351 JLM
 IPP Rev:F 07-07-28 As per Rev E JLM Verified By:ec IPP Rev.G
 11.05.31 DSI 9559 EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-13A		Purchased	No			120	Each	1,327.000	4	4			

AN4-13A

Bolt

Location	Loc Qty	Loc Code
ST357	1327	
119449	39	
120187	48	
120422	340	
120770	400	
121162	500	

AN4-20A

AN4-20A

Bolt

Purchased	No		120	Each	473.0000	8	8
-----------	----	--	-----	------	----------	---	---

Location	Loc Qty	Loc Code
GA	50	
116419	50	
ST359	423	
115936	3	
117514	51	
119127	169	
121060	200	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-13-12 1:02:11 PM

Page 2

Work Order ID: 83194

83194

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 13/04/2012

Required Date: 27/04/2012

Start Qty: 1.00

Required Qty: 1.00

AN4-5A

Purchased

No

120

Each

1,006.000

4

4

AN4-5A

Bolt

**

SP

SP

Location

Loc Qty

Loc Code

ST355

1006

117508

6

120562

1000

4x

AN960ID416

NAS1149D0463J

Purchased

No

120

Each

10.0000

20

20

AN960.ID416

Washer

**

m121255 SP

SP

Location

Loc Qty

Loc Code

ST351

10

116289

10

Manufactured

No

120

Each

4.0000

2

2

D3195-041

D3195-041

Bracket Assembly

**

SP

SP

Location

Loc Qty

Loc Code

ST246A

4

76207

4

Manufactured

No

120

Each

5.0000

2

2

D3195-043

D3195-043

Bracket Assembly

**

SP 12-04-25

SP

Location

Loc Qty

Loc Code

ST246A

5

76210

5

2x

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-13-12 1:02:12 PM

Page 3

Work Order ID: 83194

83194

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 13/04/2012

Required Date: 27/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3196-1 Manufactured No

120 Each 5.0000 1 1

D3196-1
Bar

**

Location

Loc Qty

Loc Code

ST260

5

79094

1

81533

4

D3196-3 Manufactured No

120 Each 5.0000 1 1

D3196-3
Bar

**

Location

Loc Qty

Loc Code

ST260

5

80816

5

D3196-4 Manufactured No

120 Each 5.0000 1 1

D3196-4
Bar

**

Location

Loc Qty

Loc Code

ST260

5

81537

5

D3197-041 Manufactured No

120 Each 4.0000 2 2

D3197-041
Bar Assembly

**

Location

Loc Qty

Loc Code

ST260

4

81536

4

D3198-1 Manufactured No

120 Each 0.0000 4 4

D3198-1
Fitting

**

2x
B82604 SP
12-01-25

April-13-12 1:02:12 PM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-13-12 1:02:12 PM

Page 4

Work Order ID: 83194

83194

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 13/04/2012

Required Date: 27/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3268-1

Manufactured No

120

Each

48.0000

2

D3268-1

Placard

**

B83225 SP

Location

Loc Qty

Loc Code

ST246A

48

81139

48

D3546-1

Manufactured No

120

Each

8.0000

2

D3546-1

Clip

**

SP

Location

Loc Qty

Loc Code

ST245

8

73444

8

D3551-11

Manufactured No

120

Each

41.0000

13

D3551-11

Hook and Loop Tie

**

SP

Location

Loc Qty

Loc Code

ST246A

41

80182

1

81879

40

D412-702-069 *ctk-w*

Manufactured No

120

Each

2.0000

1

D412-702-069

Grommet

**

SP 12-04-25

Location

Loc Qty

Loc Code

FG125

2

79506

2

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR: Yes No** **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-13-12 1:02:12 PM

Page 5

Work Order ID: 83194

83194

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 13/04/2012

Required Date: 27/04/2012

Start Qty: 1.00

Required Qty: 1.00

D4387-041

Manufactured No

120

Each

10.0000

9

9

**

D4387-041

Harness Assembly

B82144 SP

Location

Loc Qty

Loc Code

quar

5

72273

5

ST263

5

81534

5

D4387-043

Manufactured No

120

Each

4.0000

4

4

**

D4387-043

Harness Assembly

5x
SP

Location

Loc Qty

Loc Code

ST263

4

81535

4

MS21042L4

Purchased No

120

Each

3,637.000

12

12

**

MS21042L4

Nut

4x
SP

Location

Loc Qty

Loc Code

ST300

3637

116188

5

119017

4

119075

1628

121011

2000

MS24694-S152

Purchased No

120

Each

35.0000

8

8

**

MS24694-S152

Screw

12x
MD144 SP
12-04-25

Location

Loc Qty

Loc Code

ST290

35

116440

1

119108

14

120731

20

4x

April-13-12 1:02:12 PM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-13-12 1:02:12 PM

Page 6

Work Order ID: 83194

83194

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 13/04/2012

Required Date: 27/04/2012

Start Qty: 1.00

Required Qty: 1.00

MS24694-S154

Purchased

No

120

Each

44.0000

8

8

MS24694-S154

SCREW

**

SP 12-04-25

Location

Loc Qty

Loc Code

ST289A

15

120498

15

ST290

29

119022

4

121068

25

8x

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -021	QTY -023	QTY -025	QTY -027	QTY -029	QTY -035	Part Number	Description
X						D412-702-021	Dart 13-Man Shoulder Harness Kit, 4-point
	X					D412-702-023	Dart 5-Man Forward Facing Shoulder Harness Kit, 4-point
		X				D412-702-025	Dart 4-Man Aft Facing Shoulder Harness Kit, 4-point
			X			D412-702-027	Dart 4-Man Side Facing Shoulder Harness Kit, 4-point
				X		D412-702-029	Dart 1-Man Forward Facing Shoulder Harness Kit, 4-point
					X	D214-702-035	Dart 5-Man Aft Facing Shoulder Harness Kit, 4-point, for Bell 214B/B-1
1	1		1	1		D412-702-069	GROMMET KIT
2	2					D3195-041	BRACKET
2	2					D3195-043	BRACKET
1	1			1		D3196-1	BAR
1			1			D3196-3	BAR
1			1			D3196-4	BAR
2	2					D3197-041	BAR
4		4				D3198-1	FITTING
2	2					D3268-1	PLACARD
9	5		4	1		D3446-041	HARNESS ASSEMBLY, 4 POINT
4		4				D3446-043	HARNESS ASSEMBLY, 4 POINT
					5	D3446-045	HARNESS ASSEMBLY, 4 POINT
13	5	4	4	1	5	D3551-11	HOOK AND LOOP TIE
2	2					D3546-1	CLIP
4		4				AN4-5A	BOLT
4	4					AN4-13A	BOLT
8		8				AN4-20A	BOLT
20		20				AN960JD416	WASHER (OR NAS1149D0463J)
12		12				MS21042L4	NUT (OR MS21042-4)
8	2		6	2		MS24694-S152	SCREW
8	2		6	2		MS24694-S154	SCREW

QTY -069	Part Number	Description
X	D412-702-069	GROMMET KIT
24	D3619-2	GROMMET
1	D3619-2T1	HOLE PUNCH
1	D3619-2T2	STRIKER BLOCK
1	D3619-2T3	PUNCH
1	D3619-2T4	DIE

REFERENCE ONLY

DART SERVICE INSTRUCTION

TO AMEND IIN-D412-702-1 REV. A,
AND ICA-D412-702 REV. 4 OR EARLIER APPROVED REVISIONS
REF. TCCA STC: SH04-7
REF. FAA STC: SR01997NY
REF. EASA STC: EASA.IM.R.S.00710

PURPOSE

The purpose of this DSI is to outline the replacement of existing D3446-041/-043 Shoulder Harnesses with the new and improved D4387-041/-043 Shoulder Harnesses.

CHANGE

For the following Kits, the D4387-041 and D4387-043 Shoulder Harnesses respectively replace the D3446-041 and D3446-043 Shoulder Harnesses as follows:






Old Harness P/N	Used On	New Harness P/N	Effectivity
D3446-041	-D412-702-021 *	D4387-041	CHG 003 and subsequent
	D412-702-023		CHG 002 and subsequent
	D412-702-027		CHG 002 and subsequent
	D412-702-029		CHG 002 and subsequent
D3446-043	D412-702-021	D4387-043	CHG 003 and subsequent
	D412-702-025		CHG 002 and subsequent

Customers who want to upgrade their shoulder harnesses may replace their existing D3446-041/-043 with D4387-041/-043 per this service instruction.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: 
D. SHEPHERD (DE # 02)

DATE: 11.05.09
CERT. NO.: SH04-7
ISSUE NO.: 3

A	NEW ISSUE	MB	11.05.09
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9559	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		HARNES CHANGE	NTS
DATE	11.05.09	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	